

Amendments to the Claims

Amend Claim 15 to depend from Claim 10 instead of Claim 12.

Enter new Claims 26 to 32.

Complete listing of all of the Claims

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Claim 1 (previously amended) An apparatus for carrying out solid phase microextraction of target analytes included in a fluid or a solid sample, comprising gas tight enclosure means for receiving the sample before the enclosure is made gas tight, means located within the enclosure means for extracting the target analytes from the sample, and means located outside of the enclosure means for chemically desorbing the target analytes by solvent extraction by a micro-volume of solvent, wherein the extraction means includes a solid support in the form of multiple fibres which may be coated or uncoated, the fibres and/or the coating being selected, based upon selectivity of the fibres and/or coating for at least one of the analytes present in the sample, and wherein the extraction means either samples a head space near the sample or samples the sample directly.

Claims 2-4 (cancelled)

Claim 5 (previously amended) An apparatus according to Claim 1, additionally comprising means for shielding the fibers from the atmosphere, such that the fibers are drawn up inside the shield means.

Claim 6 (cancelled)

Claim 7 (previously amended) An apparatus according to Claim 1, wherein the coating is an organic material selected from the group consisting of polyethyleneglycol and methoxy polyethyleneglycol, silicone, polyimide,

divinylbenzene, polyacrylate, carbon-based sorbents and ion-exchange materials.

Claim 8 (previously amended) An apparatus according to Claim 1, wherein the fibers are of a material selected from the group consisting of fused silica, graphite, solid polymers and metals .

Claim 9 (previously amended) An apparatus according to Claim 1, wherein the fibres are of fused silica, and the coating is of silicone.

Claim 10 (previously amended) A method for solid phase micro extraction of analytes included in a fluid or a solid sample, comprising

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- (a) exposing a fluid or a solid sample including target analytes in a gas-tight enclosure, to a solid support in the form of multiple fibers which may be coated or uncoated, the fibers and/or the coating being selected based upon selectivity of the fibers and/or coating for at least one of the analytes in the sample, for a sufficient time to permit chemical extraction of the analytes by the fibers to occur, wherein the multiple fibers either samples a head space near the sample or samples the sample directly, and
 - (b) ending said exposure and then placing said solid support into a micro volume of solvent where chemical desorption of the analytes from the support occurs.

Claim 11 (cancelled).

Claim 12 (cancelled).

Claim 13 (previously amended) A method according to Claim 10, wherein the solvent is a suitable organic solvent.

Claim 14 (previously amended) A method according to Claim 10, wherein the chemical extraction is by absorption or adsorption of the target analyte by the fibers or coating.

Claim 15 (currently amended) A method according to Claim 10, wherein the solvent is a suitable organic solvent.

Claim 16 (previously amended) A method according to Claim 10, wherein the fibers are uncoated.

Claim 17 (previously amended) A method according to Claim 16, wherein the fibers are of fused silica.

Claim 18 (previously amended) A method according to Claim 10, wherein the coating is an organic material selected from the group consisting of polyethyleneglycol, methoxypolyethyleneglycol, silicone, polyimide, divinylbenzene, polyacrylate, carbon-based sorbents and ion-exchange materials.

Claim 19 (original) A method according to Claim 18, wherein the coating is silicone.

Claim 20 (previously added) An apparatus according to Claim 1, wherein the fibers are solid fibers or hollow fibers .

Claim 21 (previously added) An apparatus according to Claim 20, wherein the coatings are selected from absorption- and adsorption-type coatings.

Claim 22 (previously added) An apparatus according to Claim 20, wherein the coatings are identical or different.

Claim 23 (previously added) An apparatus according to Claim 20, wherein the fibers are hollow fibers, coated on the outside or the inside.

Claim 24 (previously added) A method according to Claim 10, including the additional step of

(c) storing and archiving the microvolume of solvent containing the dissolved analytes until a convenient time for analysis.

Claim 25 (previously added) A method according to Claim 10, wherein step (b) the solvent containing the extracted analytes are shielded from volatilizing into the atmosphere.

Claim 26 (new) An apparatus according to Claim 9, additionally comprising means for shielding the fibers from the atmosphere, such that the fibers are drawn up inside the shield means.

Claim 27 (new) An apparatus according to Claim 1, wherein the extraction means is positioned to sample a head space near the sample.

Claim 28 (new) An apparatus according to Claim 1, wherein the extraction means is positioned to sample the sample directly.

Claim 29 (new) A method according to Claim 10, wherein the multiple fibers are positioned to sample a head space near the sample.

Claim 30 (new) A method according to Claim 10, wherein the multiple fibers are positioned to sample the sample directly.

Claim 31 (new) An apparatus according to Claim 1, wherein the extraction means is positioned to sample both a head space near the sample and to sample the sample directly.

Claim 32 (new) A method according to Claim 10, wherein the multiple fibers are positioned to sample both a head space near the sample and to sample the sample directly.